USDA United States Department of Agriculture

Natural Resources Conservation Service

Idaho Basin Outlook Report May 1, 1998

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office
or
Natural Resources Conservation Service
Snow Surveys
9173 West Barnes Drive, Suite C
Boise, ID 83709
(208) 378-5740

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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Please mark the BASIN REPORT(S) you would like to receive.

[ ] G - General Outlook Report (mailed to all recipients)

[ ] #1 - Panhandle Region

[ ] #2 - Clearwater River Basin

[ ] #3 - Salmon River Basin

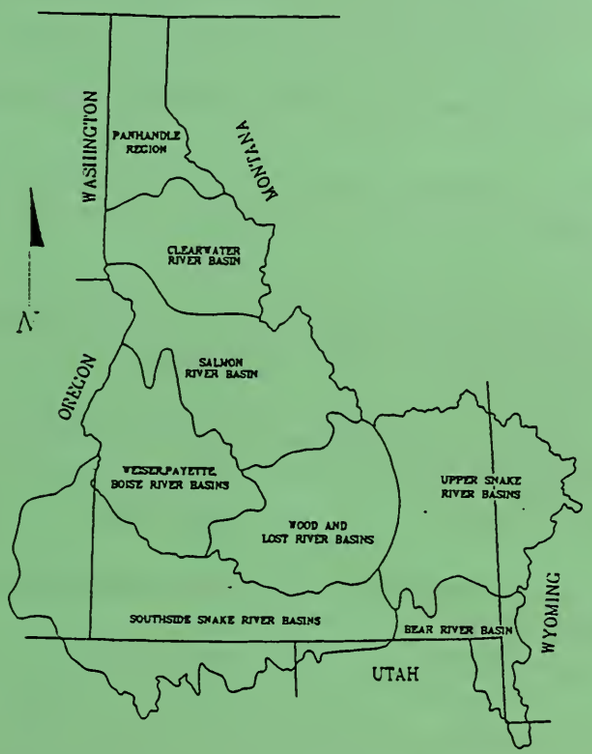
[ ] #4 - Weiser, Payette, Boise River Basins

[ ] #5 - Wood and Lost River Basins

[ ] #6 - Upper Snake River Basin

[ ] #7 - Southside Snake River Basins

[ ] #8 - Bear River Basin



[ ] - Annual Data Summary Report (published after each water year, it contains individual snow course measurements, snow water equivalant and precipitation data from SNOTEL (SNOw TELemetry) stations, and the 1961-90 averages)

The above report is also available on the Centralized Forecast System (CFS) computer in Portland, Oregon. A terminal or computer with communication software, modem and phone line are required. Please contact the snow survey office if you are interested in computer access at (208) 378-5741.

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The Natural Resources Conservation Service (NRCS), Snow Survey and Water Supply Forecasting Program has been designated as a pilot program under the Government Performance Review Act. As a registered user of the Centralized Forecasting System (CFS), you represent an important portion of the NRCS customer base.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB number for this information is 0505-0020. The time to complete this information collection is estimated to average one minute per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Please take a few minutes to answer all four of the following questions:

Do you use information provided by the Natural Resources Conservation Service, Snow Survey and Water Supply Forecasting Program to make water use and management decisions?

❑ Yes ❑ No

How satisfied are you with the timeliness of the electronic and/or printed information provided to you by the NRCS?

❑ Very Satisfied ❑ Satisfied ❑ Dissatisfied ❑ Very Dissatisfied

How satisfied are you with the usefulness of the snow survey and water supply forecast information provided to you by the NRCS?

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Snow Survey Office
9173 West Barnes Drive, Suite C
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IDAHO WATER SUPPLY OUTLOOK REPORT

MAY 1, 1998

SUMMARY

The unremarkable winter of 1997 - 1998 is now behind us, and the summer runoff has begun in a fairly normal fashion. The early season predictions based on the El Nino weather phenomenon proved to be quite accurate. Northern Idaho had well below normal snowpacks, and snowpack percentages showed a gradual increase moving south and east with normal to slightly above normal snowpacks along the Idaho and Nevada / Utah borders and upper Snake headwaters. Summer runoff will show the same pattern. Idaho water users will see below normal runoff volumes across the state, but supplies should be adequate even in northern Idaho. The abundant runoff from last year provided excellent carryover storage in most controlled lakes and reservoirs, ensuring adequate water supplies throughout central, southern and eastern Idaho. Unless a drastic weather change occurs in the next month or so, the many diverse water users in our state should all have a great season this year!

SNOWPACK

The May 1 snowpack ranges from 75-95% of average across the southern 2/3 of Idaho. The Clearwater, St. Joe and Coeur d'Alene basins host the lowest snowpacks in Idaho and some of the lowest in the Western U.S. at only 50-60% of average. These low snowpacks in northern Idaho are typical during El Nino years and warm continue the consistency of a below normal snowpack for the last 10 El Nino years. Unusually temperatures in late April started melting mid-elevation snow, and by months end even the higher elevation snow was melting. Mid-elevation snow measuring sites are nearly melted out, but there is plenty of snow in the high county. These sites will not melt-out completely until mid-June at the earliest.

PRECIPITATION

Once again northern Idaho was the dry spot. April precipitation was about half of normal in the Panhandle Region and three-quarters normal in the Clearwater basin. Elsewhere, April precipitation was 100-125% of average in the central and southern Idaho mountains and 80-95% across eastern Idaho and the upper Snake in Wyoming. Water year to date precipitation ranges from 80% of average in the Clearwater River, which is slightly more than half of the amount which fell by this time last year to 93% in central and southern Idaho. The National Weather Service extended forecast for May is for above normal temperatures and precipitation for the western two-thirds of Idaho. The extended May-July forecast is for normal temperatures across Idaho and above normal precipitation in northern Idaho, trending toward normal precipitation across the rest of the state.

RESERVOIRS

Storage in Idaho reservoirs and natural lakes is in good shape. Nearly all water storage facilities are reporting above average May 1 levels. Most reservoirs are 80-95% of capacity, and a few are even already full. All major reservoirs are expected to fill and will help overcome any deficits in streamflow. Reservoir users can expect the normal summer drawdowns when irrigation demands start to exceed natural inflows. Carryover storage for 1999 will not be as abundant as this year due to the below normal snowpacks and runoff.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in this report.

STREAMFLOW

Warm temperatures and rain brought a rapid rise in many streams around April 24. This peak was mainly a result of rain and mid-elevation snow melt. Record warm temperatures at the end of April and early May started melting the snowpack in the higher elevations, raising stream levels beyond their late April peaks. There is still the potential for high flows or another peak in the central Idaho streams if hot weather returns for a week or longer in May or if rain occurs during the critical snow melt period. Northern Idaho streams may be reaching their seasonal snow melt peaks as of this writing due to warmer than normal temperatures. Streamflows in April were near average across most of Idaho. Streamflow forecasts are for 70-90% of average volumes for the May-September period across the southern and central Idaho and 90-105% in the upper Snake basin. Northern Idaho will see streamflow volumes in the 50-70% of average range.

RECREATION

Water-based recreation opportunities should be excellent this spring and summer as a result of snowpack and streamflow forecasts in the 70-90% of average range across the southern 2/3 of the state. The lowest streamflow forecasts are in the Clearwater and Panhandle Region at 60-70% of average. Below normal snowpacks will result in a much shorter high water season than last year and allow river runners earlier access to the rivers. There is still the potential for high flows or another peak in the central Idaho streams if hot weather returns for a week or longer in May or if rain occurs during the critical snow melt period. Northern Idaho streams may be reaching their seasonal snow melt peaks due to warmer than normal temperatures in northern Idaho. Consequently, if warmer than normal temperatures occur or remain moderate through May, river runners can expect earlier than normal streamflow peaks and earlier return to base flows conditions. All major reservoirs are expected to fill and will provide excellent reservoir recreational opportunities. Reservoir users can expect normal summer drawdowns when irrigation demands start to exceed natural inflows.

DATA NETWORK OPTIMIZATION

Analysis of the data collection network is an ongoing process based on a number of considerations. Data sites are added, discontinued or automated (with SNOTEL equipment) depending on some or all of the following factors: importance for streamflow forecasting; relationship to nearby sites concerning aspect, elevation, snow accumulation and ablation (melting) patterns; cost efficiency of obtaining timely or consistent measurements; safety concerns in obtaining measurements; as well as other resource management related issues (recreation, game management, local importance to name a few). Over the last few years we installed new snow courses near Sandpoint, Weiser, Mountain Home, and Ketchum (new SNOTEL site) and installed SNOTEL sites at existing snow courses near Salmon and Mountain Home. **This summer we are proposing to discontinue measurements at five snow courses pending further analysis: Below Roland (Coeur d'Alene basin), Granite Peak (St. Joe basin), Buck Meadows and Cayuse Airstrip (Clearwater basin), and Road Creek (Boise basin), sites currently are measured only once a year. Public comments about this proposed action should be addressed to Idaho Snow Surveys no later than July 15, 1998.**

IDAHO SURFACE WATER SUPPLY INDEX (SWSI)
As of May 1, 1998

The Surface Water Supply Index (SWSI) is predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

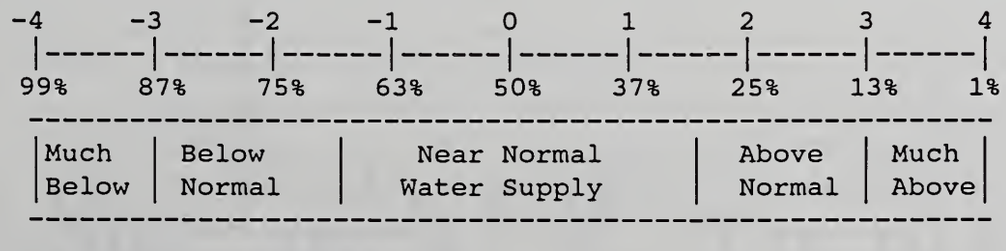
SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance to the Natural Resources Conservation Service in the preparation of the Surface Water Supply Index for Idaho:

US Department of Commerce, National Weather Service
US Bureau of Reclamation
Idaho Water Users Association
US Army Corps of Engineers
Idaho Department of Water Recourses
PacifiCorp

BASIN or REGION	*SWSI Value*	*Recent Years With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
PANHANDLE	-3.0	1988	NA
CLEARWATER	-2.0	1983	NA
SALMON	-0.3	1980	NA
WEISER	-2.0	1985	NA
PAYETTE	-0.2	1981	NA
BOISE	-0.2	1993	-2.6
BIG WOOD	-0.8	1985	-1.4
LITTLE WOOD	0.3	1993, 76	-2.1
BIG LOST	-0.2	1993	-0.8
LITTLE LOST	-0.3	1990	0.0
HENRYS FORK	-1.5	1991	-3.3
SNAKE (AMERICAN FALLS)	0.4	1985	-2.0
OAKLEY	1.9	1985, 79	0.0
SALMON FALLS	2.2	1982	0.0
BRUNEAU	-1.1	1985	NA
OWYHEE	-0.4	1993	NA
BEAR RIVER	-0.1	1985	-3.8

SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION



Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply", represents three SWSI units and would be expected to occur about one third (36%) of the time.

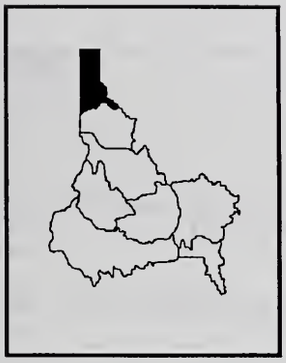
BASIN-WIDE SNOWPACK SUMMARY

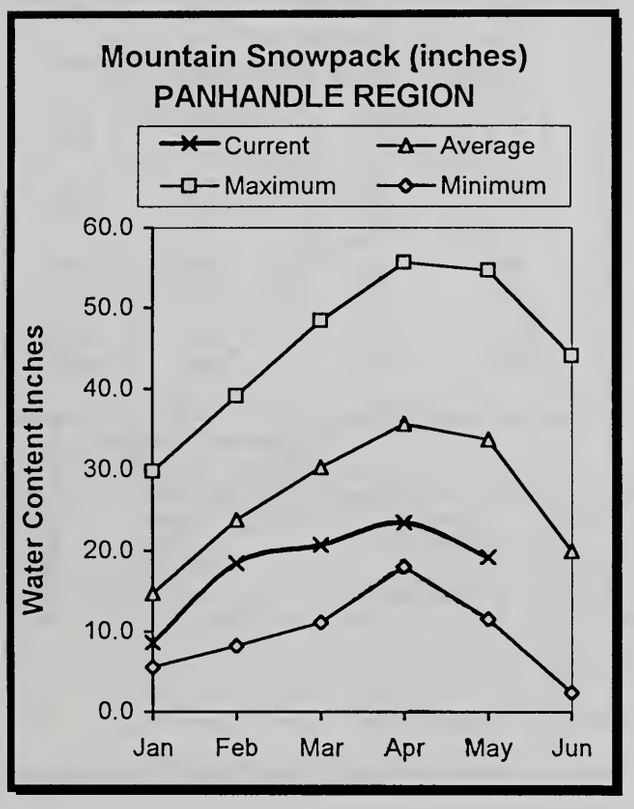
MAY 1998

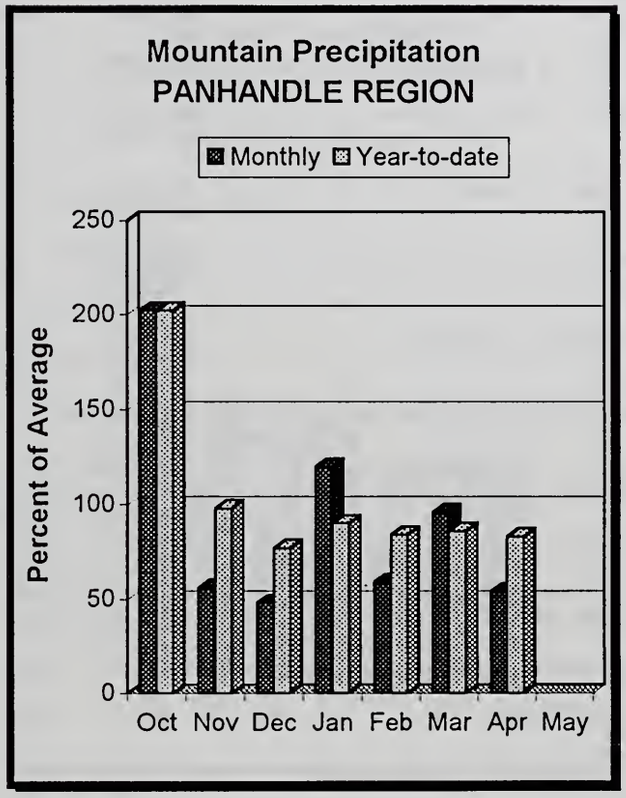
BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
PANHANDLE REGION		
Kootenai ab Bonners Ferry	44%	66%
Moyie River	48%	65%
Priest River	43%	64%
Pend Oreille River	40%	65%
Rathdrum Creek	34%	52%
Hayden Lake	Not Available	
Coeur d'Alene River	32%	49%
St. Joe River	35%	57%
Spokane River	33%	52%
Palouse River	0%	0%
CLEARWATER RIVER BASIN		
North Fork Clearwater	35%	59%
Lochsa River	32%	59%
Selway River	36%	60%
Clearwater Basin Total	35%	60%
SALMON RIVER BASIN		
Salmon River ab Salmon	52%	81%
Lemhi River	61%	91%
Middle Fork Salmon River	48%	70%
South Fork Salmon River	54%	74%
Little Salmon River	64%	77%
Salmon Basin Total	56%	80%
WEISER, PAYETTE, BOISE RIVER BASINS		
Mann Creek	79%	96%
Weiser River	74%	84%
North Fork Payette	63%	80%
South Fork Payette	49%	67%
Payette Basin Total	59%	77%
Middle & North Fork Boise	51%	78%
South Fork Boise River	55%	86%
Mores Creek	49%	77%
Boise Basin Total	53%	80%
Canyon Creek	Not Available	

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
WOOD AND LOST RIVER BASINS		
Big Wood ab Magic	52%	84%
Camas Creek	53%	77%
Big Wood Basin Total	52%	83%
Little Wood River	55%	100%
Fish Creek	Not Available	
Big Lost River	58%	89%
Little Lost River	56%	78%
UPPER SNAKE RIVER BASIN		
Birch-Medicine Lodge Creeks	51%	84%
Camas-Beaver Creeks	64%	103%
Henrys Fork-Falls River	55%	84%
Teton River	66%	103%
Snake above Jackson Lake	59%	93%
Gros Ventre River	66%	98%
Hoback River	60%	98%
Greys River	52%	84%
Salt River	53%	83%
Snake above Palisades	58%	93%
Willow Creek	50%	97%
Blackfoot River	44%	65%
Portneuf River	68%	138%
Snake abv American Falls Resv	58%	94%
SOUTHSIDE SNAKE RIVER BASINS		
Raft River	64%	148%
Goose-Trapper Creeks	55%	103%
Salmon Falls Creek	60%	86%
Bruneau River	61%	81%
Owyhee Basin Total	44%	66%
BEAR RIVER BASIN		
Smiths & Thomas Forks	62%	92%
Bear River ab WY-ID line	65%	98%
Montpelier Creek	0%	0%
Mink Creek	57%	70%
Cub River	45%	113%
Bear River ab ID-UT line	58%	92%
Malad River	Not Available	

PANHANDLE REGION
MAY 1, 1998







WATER SUPPLY OUTLOOK

April precipitation was only half of normal and is 83% of average for the water year. All snow measuring stations in this region showed a net decrease in snow water content between April 1 and May 1. Decreases ranged from 2-3 inches for stations above 6,000 feet in elevation to about 10 inches for sites less than 5,000 feet. Snowpacks in areas less than 4,000 feet elevation have just about melted out. Snowpacks are the lowest in the state in the Coeur d'Alene basin at 49% of average and St. Joe basin at 57% of average. Overall, the snowpack in the Panhandle Region is 57% of average. These low snowpacks and runoff volumes in northern Idaho are typical of El Nino years and continue the consistency of a below normal amounts for the last 10 El Nino years. The natural lakes in this area are 60-90% of summer capacity and should fill even with the expected below normal runoff. Streams are forecast in the 50-60% of average range and will return to base flow conditions much sooner than last year.

PANHANDLE REGION
Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	MAY-JUL	3616	4410	4770	75	5130	5924	6390
	MAY-SEP	4233	5159	5580	75	6001	6927	7466
CLARK FK at Whitehorse Rpds (1,2)	MAY-JUL	4338	5584	6150	61	6716	7962	10020
	MAY-SEP	4887	6278	6910	62	7542	8933	11200
PEND OREILLE Lake Inflow (1,2)	MAY-JUL	4805	6149	6760	61	7371	8715	11070
	MAY-SEP	5380	6872	7550	61	8228	9720	12290
PRIEST nr Priest River (1,2)	MAY-SEP	260	370	420	62	470	580	680
COEUR D'ALENE at Enaville	MAY-JUL	120	189	236	50	283	352	472
	MAY-SEP	151	222	270	53	318	389	512
ST.JOE at Calder	MAY-JUL	362	443	498	57	553	634	881
	MAY-SEP	416	500	557	59	614	698	949
SPOKANE near Post Falls (2)	MAY-JUL	486	703	851	49	999	1216	1749
	MAY-SEP	548	769	919	50	1069	1290	1846
SPOKANE at Long Lake	MAY-JUL	691	918	1073	54	1228	1455	1975
	MAY-SEP	859	1092	1250	57	1408	1641	2198

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	2551.0	1341.0	2043.0
FLATHEAD LAKE	1791.0	829.3	1082.0	937.2
NOXON RAPIDS	335.0	272.1	326.8	208.7
PEND OREILLE	1561.3	931.4	1098.1	920.7
COEUR D'ALENE	238.5	181.5	546.5	246.7
PRIEST LAKE	119.3	108.0	110.0	96.2

PANHANDLE REGION
Watershed Snowpack Analysis - May 1, 1998

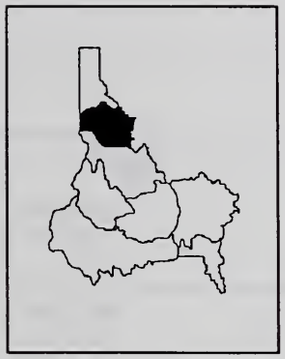
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	31	44	66
Moyie River	3	46	58
Priest River	5	43	64
Pend Oreille River	95	40	65
Rathdrum Creek	1	34	52
Hayden Lake	0	0	0
Coeur d'Alene River	7	30	46
St. Joe River	2	35	57
Spokane River	10	32	50
Palouse River	1	0	0

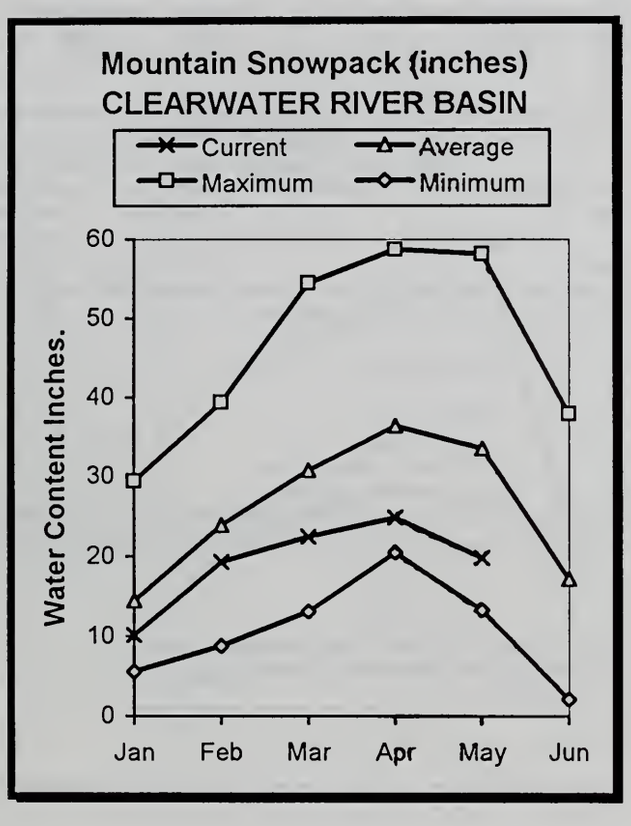
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

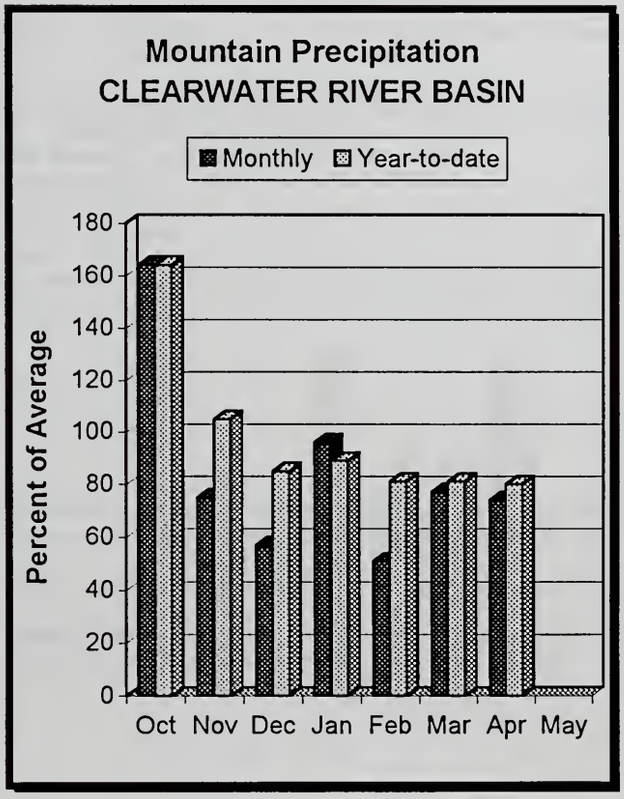
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN
MAY 1, 1998







WATER SUPPLY OUTLOOK

April precipitation was 74% of average; consequently, snowpack percentages decreased from last month and are currently 60% of average for the basin as a whole. Precipitation for the water year is 80% of average, the lowest in the state. Snow measuring stations showed a net decrease in snow water from April 1 to May 1. The snowpack throughout the basin is now about 60% of average, well below normal but typical and consistent of the last 10 El Nino years. Dworshak Reservoir is 81% full (124% of average) and is continuing to release minimal amounts in order to conserve water. Streamflow forecasts call for below normal runoff in the 60-70% of average range. Streams will return to base flow conditions earlier than normal but should be adequate for river runners.

CLEARWATER RIVER BASIN
Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DWORSHAK RESV INFLOW (1,2)	MAY-JUL	750	1053	1190	59	1327	1630	2029
	MAY-SEP	840	1150	1290	59	1430	1740	2202
CLEARWATER at Orofino (1)	MAY-JUL	1630	2276	2570	67	2864	3510	3831
	MAY-SEP	1725	2416	2730	67	3044	3735	4089
CLEARWATER at Spalding (1,2)	MAY-JUL	2712	3591	3990	67	4389	5268	5972
	MAY-SEP	2927	3871	4300	67	4729	5673	6405

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	2822.7	1545.8	2276.0

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - May 1, 1998

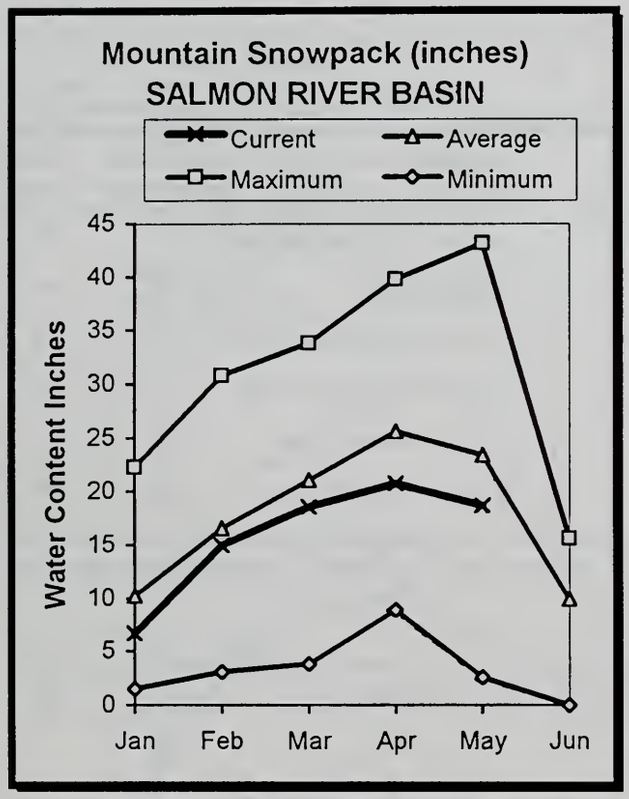
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	9	35	59
Lochsa River	2	32	59
Selway River	4	36	60
Clearwater Basin Total	14	35	60

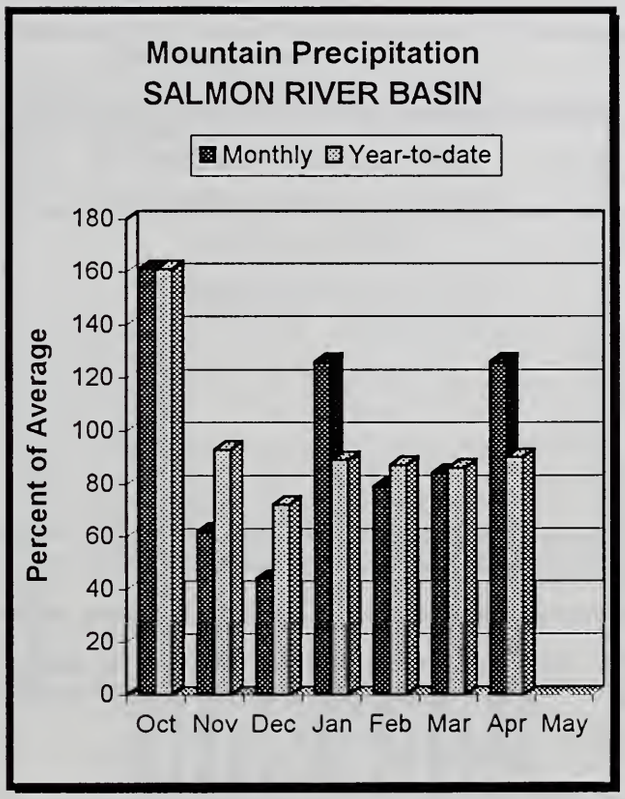
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN
MAY 1, 1998





WATER SUPPLY OUTLOOK

April precipitation in the Salmon basin ranged from 80% of average in the South Fork Salmon River area to 180% in the Lemhi River area. Only snow measuring stations in the Lemhi River area and Galena Summit areas showed a net increase in snow water. Elsewhere in the basin, snow measuring stations lost 1-4 inches of snow water during April. Snowpack percentages decreased slightly from last month except in the Lemhi basin which showed a net increase in snow water. Overall, the Salmon River basin snowpack is 80% of average. The Middle Fork Salmon River snowpack is 70% of average and will provide a good boating season. Streamflow forecasts for the May-September period call for 91% of average for the Salmon River at Salmon and 93% for the Salmon River at White Bird. River running opportunities should be excellent. With snow water content levels at only 55-65% of last year's levels on May 1, water users can expect a much shorter high water season and earlier return to base flow conditions than last year.

SALMON RIVER BASIN

Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	MAY-JUL	417	615	705	91	795	993	772
	MAY-SEP	496	732	840	91	948	1184	922
SALMON at White Bird (1)	MAY-JUL	3763	4538	4890	93	5242	6017	5284
	MAY-SEP	4227	5096	5490	93	5884	6753	5930

SALMON RIVER BASIN

Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN

Watershed Snowpack Analysis - May 1, 1998

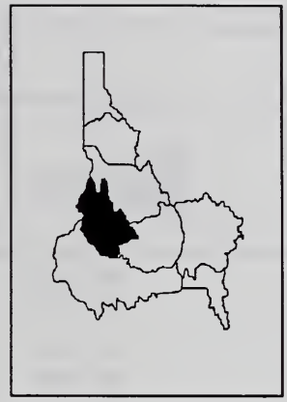
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	7	52	81
Lemhi River	5	61	91
Middle Fork Salmon River	3	48	70
South Fork Salmon River	3	54	74
Little Salmon River	4	64	77
Salmon Basin Total	23	56	80

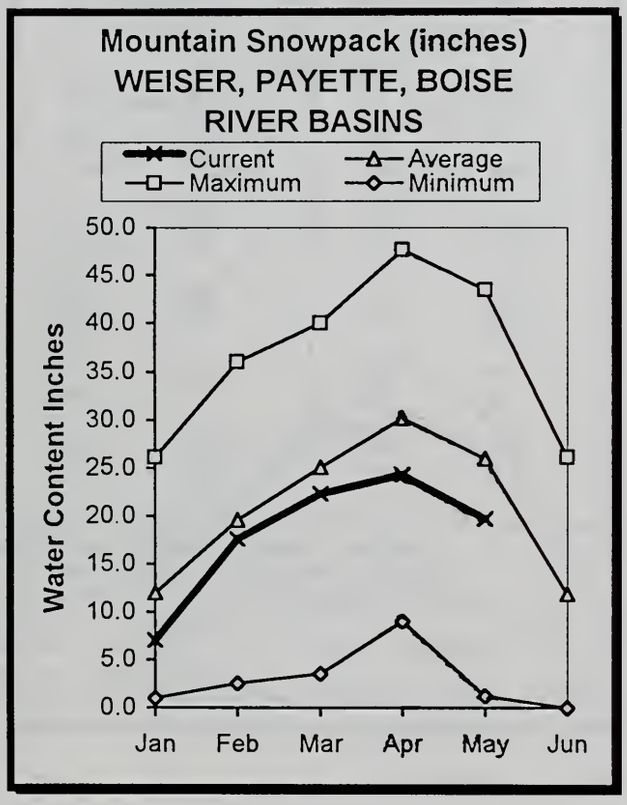
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

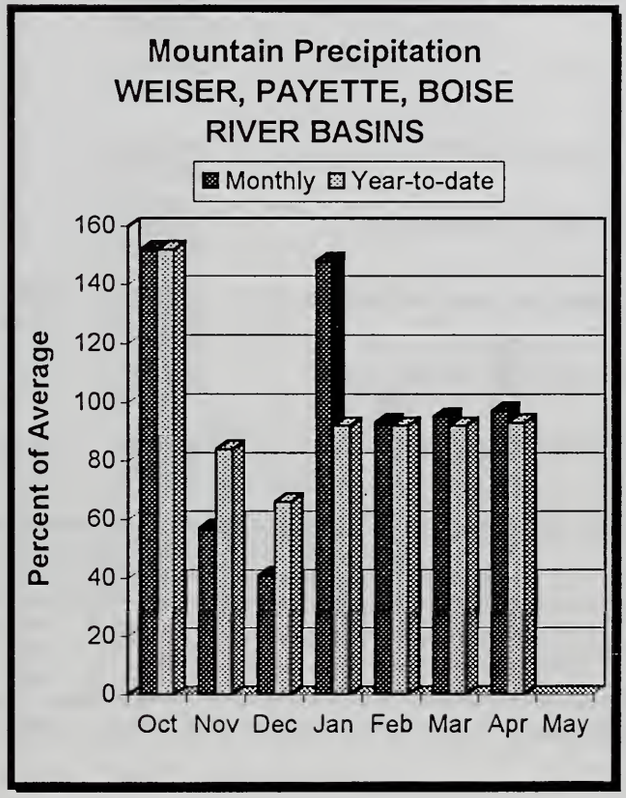
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS
MAY 1, 1998







WATER SUPPLY OUTLOOK

April precipitation was near normal in these west-central basins. Water year to date precipitation is 93% of average. Only two high elevation snow measuring stations (Dollarhide Summit, elevation 8,420 feet and Vienna Mine elevation 8,960 feet) showed a net increase in snow water since April 1. Mid-elevation stations lost 2-10 inches of snow water during April, while stations less than about 5,500 feet have melted out completely. Snowpacks are 81% of average in the Boise, 77% in the Payette and 84% in the Weiser basins. Streamflow forecasts call for 70-90% of average for the May-July period in most of these west-central Idaho streams. The Boise and Payette reservoir systems are approximately 83% of capacity and will fill this year. Water supplies will be adequate for agricultural users and will provide excellent reservoir and river recreational opportunities. Below normal snowpacks will result in a much shorter high water season than last year and allow river runners earlier access to the rivers.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER nr Weiser (1)	MAY-JUL	43	139	182	73	225	321	250
	MAY-SEP	64	161	204	73	247	344	280
SF PAYETTE at Lowman	MAY-JUL	258	283	300	80	317	342	375
	MAY-SEP	303	330	348	81	366	393	431
DEADWOOD RESERVOIR Inflow (1,2)	MAY-JUL	84	99	106	88	113	128	120
	MAY-SEP	90	106	113	89	120	136	127
NF PAYETTE nr Cascade (1,2)	MAY-JUL	272	338	368	90	398	464	407
	MAY-SEP	297	368	400	91	432	503	442
NF PAYETTE nr Banks (2)	MAY-JUL	357	419	461	90	503	565	512
	MAY-SEP	386	453	499	90	545	612	554
PAYETTE nr Horseshoe Bend (1,2)	MAY-JUL	877	1044	1120	86	1196	1363	1304
	MAY-SEP	975	1157	1240	86	1323	1505	1442
BOISE near Twin Springs (1)	MAY-JUL	340	399	426	84	453	512	509
	MAY-SEP	382	446	475	84	504	568	564
SF BOISE at Anderson Rnch Dm (1,2)	MAY-JUL	242	307	337	78	367	432	432
	MAY-SEP	267	336	368	78	400	469	470
MORES CK nr Arrowrock Dam	MAY-JUL	39	50	58	75	66	77	77
	MAY-SEP	42	54	62	75	70	81	82
BOISE nr Boise (1,2)	MAY-JUL	668	810	874	80	938	1080	1090
	MAY-SEP	757	907	975	81	1043	1193	1204

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	11.0	10.8	10.4
CASCADE	703.2	572.9	378.5	411.7
DEADWOOD	161.9	126.3	70.4	101.1
ANDERSON RANCH	464.2	363.1	210.8	327.2
ARROWROCK	286.6	278.1	104.1	214.9
LUCKY PEAK	293.2	246.0	102.4	182.9
LAKE LOWELL (DEER FLAT)	177.1	134.9	124.9	169.8

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - May 1, 1998

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Mann Creek	1	79	96
Weiser River	3	74	84
North Fork Payette	7	63	80
South Fork Payette	4	49	67
Payette Basin Total	12	59	77
Middle & North Fork Boise	6	51	78
South Fork Boise River	6	55	86
Mores Creek	3	49	77
Boise Basin Total	11	53	80
Canyon Creek	0	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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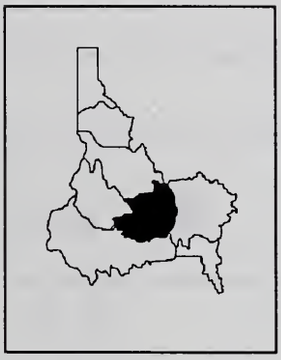
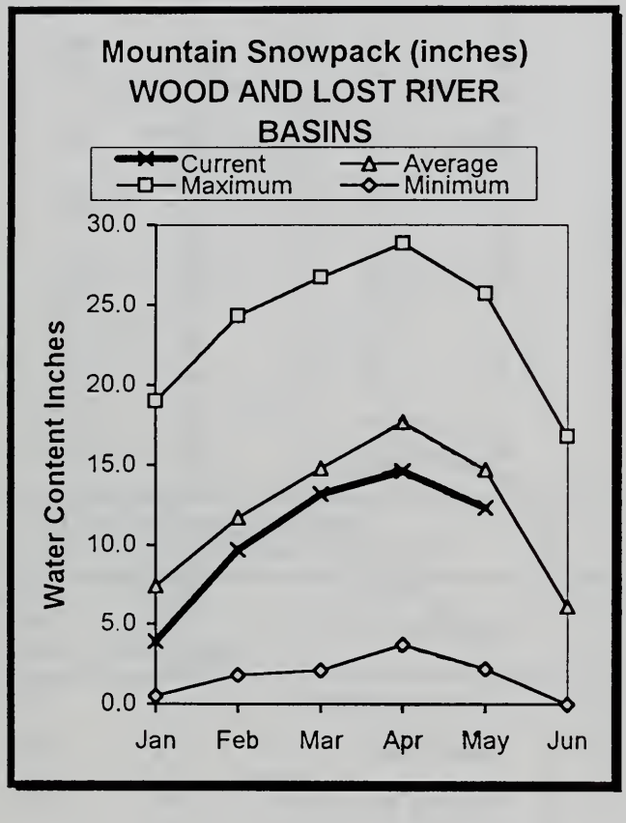
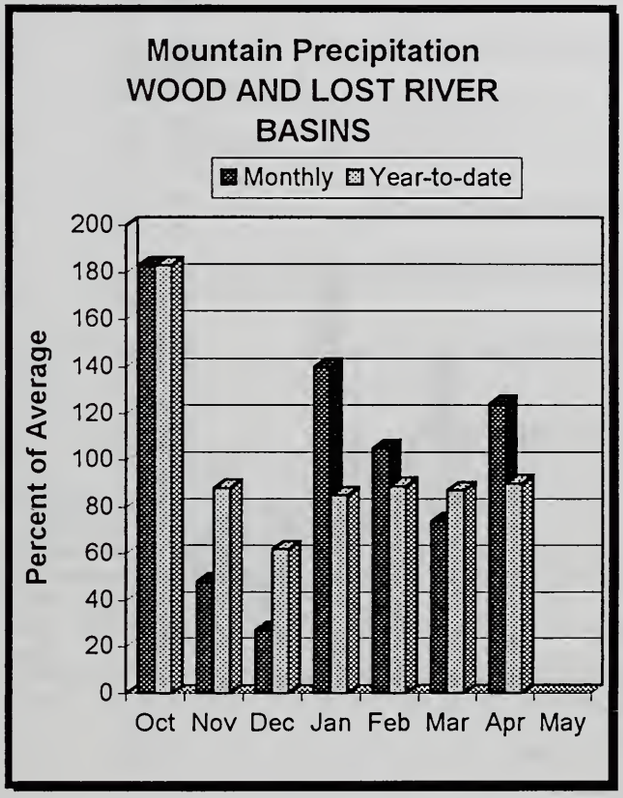
WOOD and LOST RIVER BASINS
MAY 1, 1998







WATER SUPPLY OUTLOOK

April precipitation was 124% of average in the Wood and Lost river basins. Precipitation for the water year is 90% of average. Snow water content levels since April 1 decreased at all but the highest elevation sites. Snowpack percentages range from about 78% in the Little Lost and Camas Creek (Fairfield area) basins to 100% in the Little Wood basin. The snowpack is 83% of average in the Big Wood basin and 89% in the Big Lost basin. Reservoir storage is in good shape: Little Wood is 86% of average, which is normal, and Magic and Mackay are both above normal at 96% full. Streamflow forecasts range from 60-90% of the average May-July volumes. Water supplies should be adequate this year, but carryover storage for next year may be below normal as a result of the below normal runoff this year.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD at Hailey (1)	MAY-JUL	121	145	157	70	169	198	224
	MAY-SEP	141	167	180	70	193	224	257
BIG WOOD near Bellevue	MAY-JUL	66	80	91	58	102	121	156
	MAY-SEP	72	88	99	58	111	130	170
CAMAS CREEK near Blaine	MAY-JUL	17.5	22	26	62	30	36	42
	MAY-SEP	17.9	23	27	62	31	37	43
BIG WOOD below Magic Dam (2)	MAY-JUL	81	107	125	62	143	169	201
	MAY-SEP	86	115	134	62	153	182	216
LITTLE WOOD near Carey (2)	MAY-JUL	42	53	61	93	68	79	65
	MAY-SEP	48	60	68	93	76	87	73
BIG LOST at Howell Ranch	MAY-JUL	122	136	146	86	156	170	169
	MAY-SEP	141	158	169	87	180	197	195
BIG LOST below Mackay Reservoir (2)	MAY-JUL	96	110	120	86	130	144	139
	MAY-SEP	122	138	148	87	158	174	171
LITTLE LOST blw Wet Creek	MAY-JUL	16.3	20	23	86	26	30	27
	MAY-SEP	21	26	30	86	34	39	35
LITTLE LOST nr Howe	MAY-JUL	19.3	21	23	84	24	26	27
	MAY-SEP	27	30	32	84	34	38	38

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	183.8	180.7	167.7
LITTLE WOOD	30.0	25.9	14.2	24.6
MACKAY	44.4	42.7	22.2	34.2

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - May 1, 1998

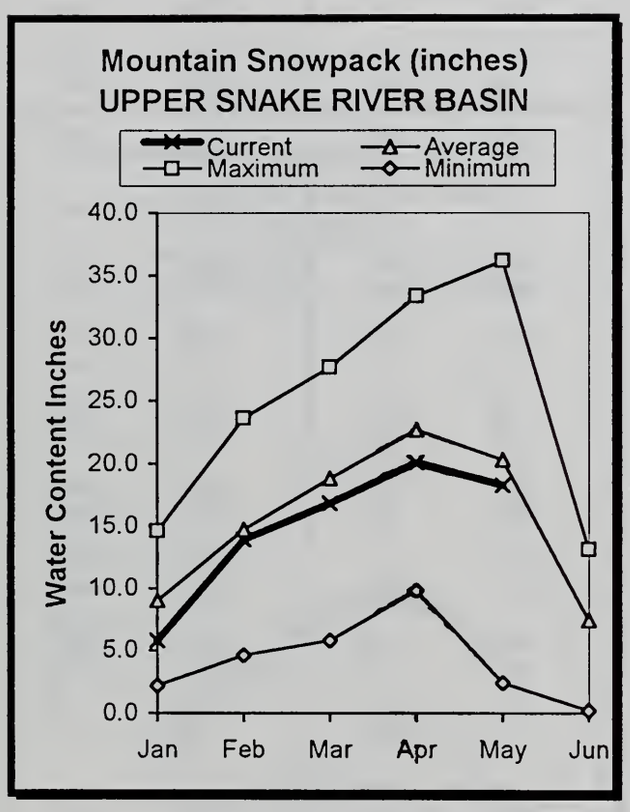
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Magic	8	53	84
Camas Creek	2	53	77
Big Wood Basin Total	10	53	83
Little Wood River	3	55	100
Fish Creek	0	0	0
Big Lost River	5	58	89
Little Lost River	3	56	78

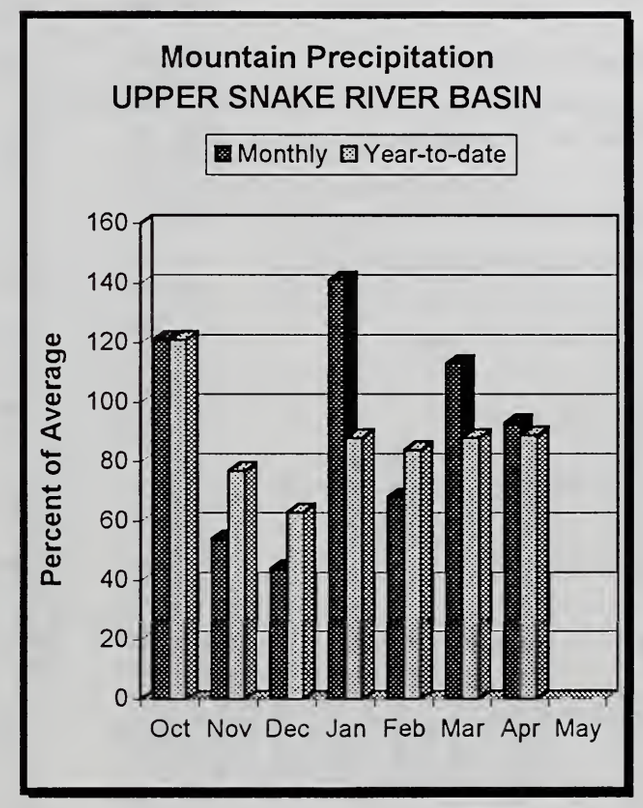
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER SNAKE RIVER BASIN
MAY 1, 1998





WATER SUPPLY OUTLOOK

Near normal April precipitation fell in the upper Snake River basin and helped maintain the snowpack percentages as reported a month ago. Precipitation for the water year is 89% of average which is only about 2/3 of the amount that fell by this time last year. Snowpack percentages range from about 85-100% of average. Snow measuring stations above 8,000 feet in elevation are just starting to melt, while mid-elevation stations in the 6,500-7,500 feet range lost 2-5 inches of snow water during April. Reservoir storage is 81% of capacity for the 8 major upper Snake reservoirs, slightly above average for May 1. Streamflow forecasts for the May-July period range from 90-105% of average for these streams. Water supplies will be adequate for Snake River reservoir water users. Instream water users will experience below normal runoff volumes. The duration of high flows this spring will be much shorter than last year as a result of snow levels slightly below normal and at only 50-65% of their levels a year ago.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK near Ashton (2)	MAY-JUL	376	420	450	104	480	524	432
	MAY-SEP	552	606	643	104	680	734	618
HENRYS FORK near Rexburg (2)	MAY-JUL	907	1010	1080	106	1150	1253	1016
	MAY-SEP	1225	1344	1425	106	1506	1625	1339
FALLS near Squirrel (1,2)	MAY-JUL	219	264	285	89	306	351	322
	MAY-SEP	276	322	343	88	364	410	390
TETON near Driggs	MAY-JUL	122	137	147	113	157	172	130
	MAY-SEP	169	188	200	113	212	231	177
TETON near St. Anthony	MAY-JUL	309	339	360	109	381	411	330
	MAY-SEP	385	422	447	109	472	509	410
SNAKE near Moran (1,2)	MAY-SEP	648	735	775	95	815	902	814
SNAKE above Palisades (2)	MAY-JUL	1935	2054	2134	101	2214	2333	2115
	MAY-SEP	2253	2394	2489	101	2584	2725	2475
GREYS above Palisades	MAY-JUL	234	255	270	92	285	306	295
	MAY-SEP	282	306	322	92	338	362	350
SALT near Etna	MAY-JUL	178	212	235	90	258	292	260
	MAY-SEP	247	285	310	91	335	373	340
PALISADES RESERVOIR INFLOW (1,2)	MAY-JUL	2460	2735	2860	99	2985	3260	2891
	MAY-SEP	2923	3241	3386	99	3531	3849	3428
SNAKE near Heise (2)	MAY-JUL	2700	2900	3036	99	3172	3372	3074
	MAY-SEP	3227	3458	3616	99	3774	4005	3672
SNAKE nr Blackfoot (1,2)	MAY-JUL	2956	3619	3920	99	4221	4884	3981
	MAY-SEP	3899	4615	4940	98	5265	5981	5019
PORTNEUF at Topaz	MAY-JUL	45	52	57	104	62	69	55
	MAY-SEP	70	75	79	104	83	88	76
AMERICAN FALLS RESV INFLOW (1,2)	MAY-JUL	1176	1846	2150	87	2454	3124	2463
	MAY-SEP	1121	1980	2370	88	2760	3619	2700

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	90.2	77.0	81.8
ISLAND PARK	135.2	130.4	114.4	125.7
GRASSY LAKE	15.2	7.5	13.7	11.7
JACKSON LAKE	847.0	663.2	432.2	456.5
PALISADES	1400.0	910.6	259.9	950.0
RIRIE	80.5	66.2	73.6	59.4
BLACKFOOT	348.7	305.6	250.0	274.6
AMERICAN FALLS	1672.6	1550.9	1203.6	1542.9

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - May 1, 1998

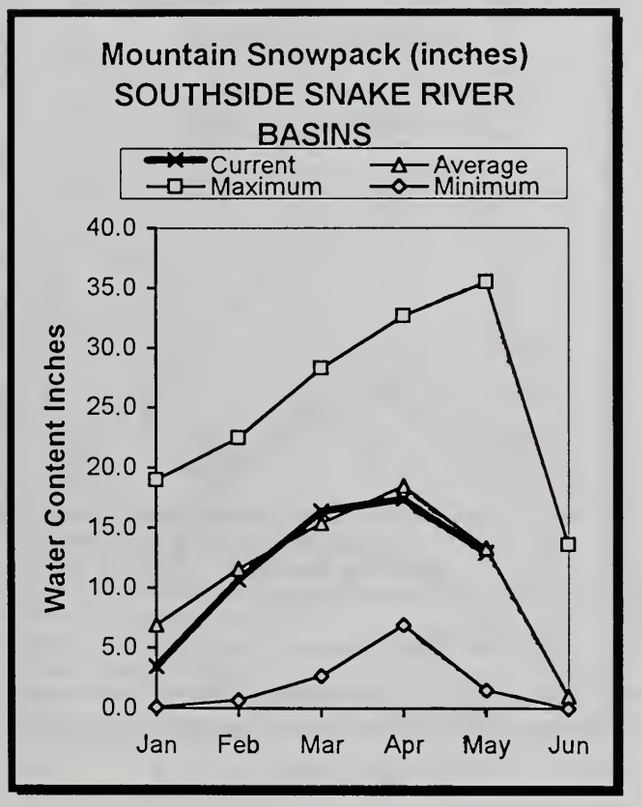
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Camas-Beaver Creeks	2	64	103
Henrys Fork River	10	55	84
Teton River	8	66	103
Snake above Jackson Lake	7	59	93
Gros Ventre River	3	66	98
Hoback River	6	58	97
Greys River	4	52	84
Salt River	5	53	83
Snake above Palisades	25	58	93
Willow Creek	5	50	97
Blackfoot River	2	44	65
Portneuf River	2	68	138
Snake abv American Falls	33	58	94

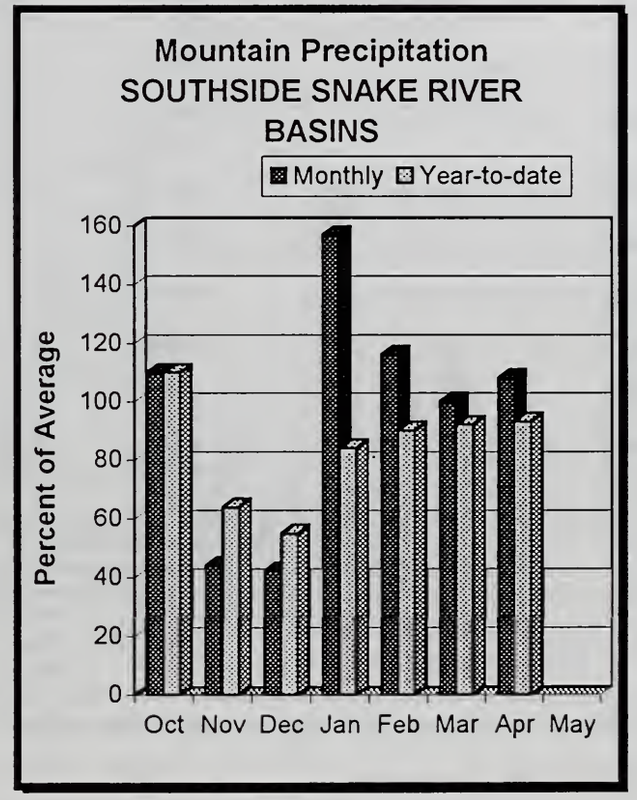
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS
MAY 1, 1998





WATER SUPPLY OUTLOOK

Above normal April precipitation fell in the Owyhee and Bruneau basins, tapering off to near normal amounts in the Salmon Falls and Oakely basins. Snowpack percentages remain about the same as a month ago. All measuring stations showed a net decrease in snow water except for Pole Creek which is located at 8,330 feet elevation in the Jarbidge River headwaters. Snowpacks as of May 1 are 90% of average in the Owyhee, 81% in the Bruneau, 86% in Salmon Falls, and 103% in the Goose / Trapper basins. Reservoir storage is in good shape and will help overcome any deficit in streamflows. Streamflow forecasts for the May-July period range from 75-85% of average in these southern Idaho streams except for the Owyhee basin which is forecast at about 45%. Even with below normal runoff, water supplies will be adequate. River runners may have to float the streams earlier than normal because of the above normal air temperatures thus far in May; a cool spring would help extend the river running season in these high desert streams.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESV INFLOW	MAY-JUL	12.0	14.8	16.9	85	19.1	23	20
	MAY-SEP	14.4	17.5	19.8	86	22	26	23
SALMON FALLS CREEK nr San Jacinto	MAY-JUL	27	36	42	73	48	59	57
	MAY-SEP	31	40	46	75	53	64	62
BRUNEAU near Hot Springs	MAY-JUL	81	106	125	77	145	178	162
	MAY-SEP	87	113	133	77	154	189	173
OWYHEE near Gold Creek (2)	MAY-JUL	2.2	5.5	8.5	70	12.2	18.8	12.2
OWYHEE nr Owyhee (2)	MAY-JUL	16.1	32	42	72	53	68	58
OWYHEE near Rome	MAY-JUL	53	72	86	43	101	126	200
OWYHEE RESV INFLOW (2)	MAY-JUL	68	87	101	48	116	141	210
	MAY-SEP	91	113	129	54	146	173	238
SUCCOR CK nr Jordan Valley	MAY-JUL	0.08	2.69	4.47	88	6.25	8.86	5.10
SNAKE RIVER at King Hill (1,2)	MAY-JUL			1470	72			2038
SNAKE RIVER near Murphy (1,2)	MAY-JUL			1450	70			2077
SNAKE RIVER at Weiser (1,2)	MAY-JUL			2620	69			3793
SNAKE RIVER at Hells Canyon Dam (1,2	MAY-JUL			2450	57			4276
SNAKE blw Lower Granite Dam (1,2)	MAY-JUL	9510	11772	12800	76	13828	16090	16940
	MAY-SEP	11295	13912	15100	77	16288	18905	19650

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	77.4	51.9	45.3	39.2
SALMON FALLS	182.6	99.9	101.2	81.4
WILDHORSE RESERVOIR	71.5	72.5	75.2	47.2
OWYHEE	715.0	652.5	715.9	619.0
BROWNLEE	1419.3	1365.4	488.8	959.9

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - May 1, 1998

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	1	64	148
Goose-Trapper Creeks	3	55	103
Salmon Falls Creek	5	60	86
Bruneau River	5	61	81
Owyhee Basin Total	7	89	90

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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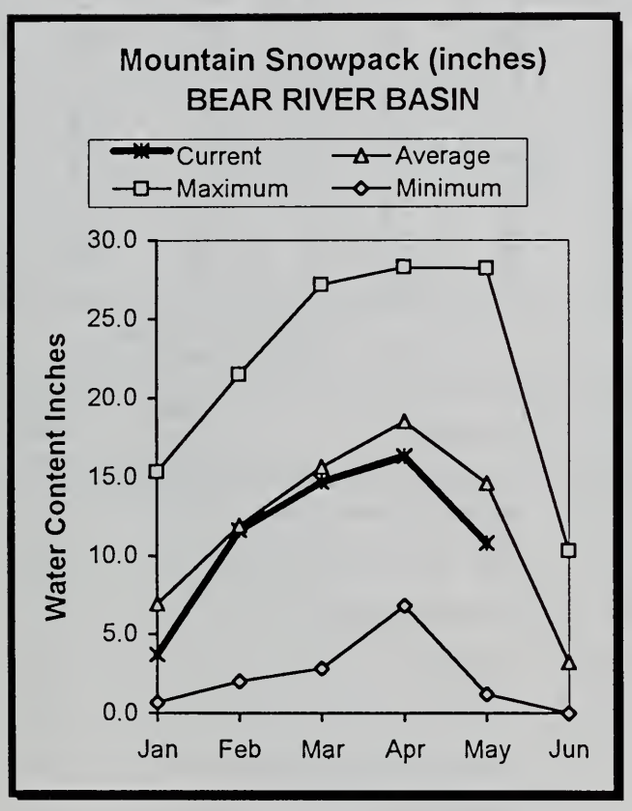
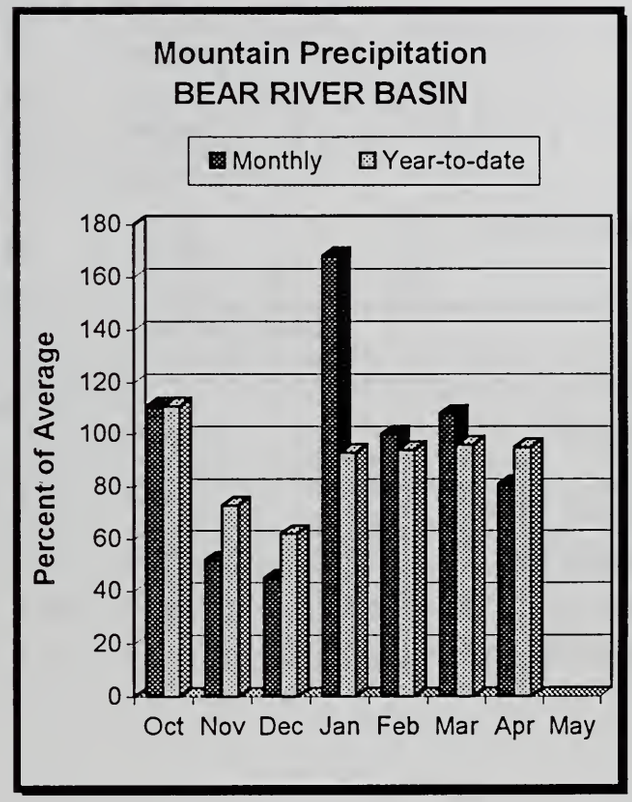
(2) - The value is natural flow - actual flow may be affected by upstream water management.

BEAR RIVER BASIN
MAY 1, 1998





WATER SUPPLY OUTLOOK

April precipitation was below normal in the Bear River basin at 81% of average. Water year to date precipitation is 95% of average which is about 2/3 of the amount that fell by this time last year. Snowpack percentages decreased since April 1, and the overall snowpack for the Bear River basin now stands at 74% of average. Only two SNOTEL sites located above 9,000 feet elevation had a net increase in snow water between April 1 and May 1. Most sites in the 7,000-9,000 feet range lost 2-5 inches of snow water; sites less than 7,000 feet lost about 10 inches of snow water and are melted out. Reservoir storage is 81% of capacity in Bear Lake; Montpelier is full and passing inflow. Streamflow forecasts for the May-July period call for 80% of average for Bear River below Stewart Dam, 76% for Montpelier Creek and 91% for Cub River. Water supplies should be adequate for these water users and allow good carryover storage in Bear Lake for next year.

BEAR RIVER BASIN

Streamflow Forecasts - May 1, 1998

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BEAR R nr Randolph, UT	MAY-JUL	33	60	78	89	96	123	88
	MAY-SEP	32	63	84	87	105	136	97
SMITHS FK nr Border, WY	MAY-JUL	59	69	77	84	86	100	92
	MAY-SEP	77	89	98	90	108	124	109
THOMAS FK nr WY-ID State Line	MAY-JUL	13.6	18.1	22	82	27	36	27
	MAY-SEP	15.3	20	24	80	29	38	30
BEAR R blw Stewart Dam nr Montpelier	MAY-JUL	107	151	180	80	209	253	225
	MAY-SEP	120	171	205	78	239	290	264
MONTPELIER CK nr Montpelier (2)	APR-JUL	6.5	8.0	9.2	75	10.6	13.0	12.2
	APR-SEP	7.7	9.3	10.6	75	12.1	14.6	14.2
	MAY-JUL	4.70	5.90	6.90	76	8.06	10.14	9.10
	MAY-SEP	5.7	7.0	8.0	76	9.2	11.3	10.6
CUB R nr Preston	APR-JUL	35	40	43	92	46	51	47
	MAY-JUL	31	36	39	91	42	47	43

BEAR RIVER BASIN

Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
WOODRUFF NARROWS	57.3	57.3	57.3	---
WOODRUFF CREEK	4.0	4.0	4.0	---
BEAR LAKE	1421.0	1147.0	1023.0	1059.0
MONTPELIER CREEK	4.0	4.0	2.7	2.2

BEAR RIVER BASIN

Watershed Snowpack Analysis - May 1, 1998

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	3	62	92
Bear River ab WY-ID line	10	65	98
Montpelier Creek	2	55	85
Mink Creek	1	57	70
Cub River	1	45	113
Bear River ab ID-UT line	17	58	94
Malad River	1	4	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and interbasin transfers are added or subtracted from the observed (actual) streamflow
volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)
CLARK FORK AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)
PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE
+ PEND OREILLE LAKE (STORAGE CHANGE)
PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)
COEUR D'ALENE R AT ENAVILLE, ID - No Corrections
ST. JOE R AT CALDER, ID - No Corrections
SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)
+ RATHDRUM PRAIRIE CANAL AT HEUTTER, ID

Clearwater River Basin

DWORSHAK RESERVOIR INFLOW, ID
+ DWORSHAK RESV (STORAGE CHANGE)
- CLEARWATER R AT OROFINO, ID
+ CLEARWATER R NR PECK, ID
CLEARWATER R AT OROFINO, ID - No Corrections
CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID - No Corrections
SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections
SF PAYETTE R AT LOWMAN, ID - No Corrections
DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)
NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)
NF PAYETTE R NR BANKS, ID
+ CASCADE RESV (STORAGE CHANGE)
PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)
BOISE R NR TWIN SPRINGS, ID - No Corrections
SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections
BIG WOOD R NR BELLEVUE, ID - No Corrections
BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)
LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)
BIG LOST R AT HOWELL RANCH NR CHILLY, ID - No Corrections
BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)
LITTLE LOST R BLW WET CK NR HOWE, ID - No Corrections
LITTLE LOST R NR HOWE, ID (Disc) - No Corrections
LITTLE LOST R NR HOWE, ID (Disc) - No Corrections

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
+ DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
+ GRASSY LAKE (STORAGE CHANGE)
FALLS R ABV YELLOWSTONE CANAL NR SQUIRREL, ID
+ GRASSY LAKE (STORAGE CHANGE)
TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections
TETON R NR ST. ANTHONY, ID
- CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE
SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)
PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
SNAKE R NR HEISE, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID
PORTNEUF R AT TOPAZ, ID - No Corrections
AMERICAN FALLS RESERVOIR INFLOW, ID
+ ALL CORRECT MADE FOR HENRYS FK NR REXBURG, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT GAGES

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
+ GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
+ TRAPPER CK NR OAKLEY, ID
SALMON FALLS CK NR SAN JACINTO, NV - No Corrections
BRUNEAU R NR HOT SPRINGS, ID - No Corrections
OWYHEE R NR GOLD CK, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR OWYHEE, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR ROME, OR
+ WILDHORSE RESV (STORAGE CHANGE)
+ JORDAN VALLEY RESV (STORAGE CHANGE)
OWYHEE RESERVOIR INFLOW, OR
+ OWYHEE R BLW OWYHEE DAM, OR
+ OWYHEE RESV (STORAGE CHANGE)
+ DIV TO NORTH AND SOUTH CANALS
SUCCOR CK NR JORDAN VALLEY, OR - No Corrections
SNAKE R AT KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID - No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
+ BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections
BEAR R AT HARER, ID (Disc.)
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
BEAR R BLW STEWART DAM, ID
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
+ DINGLE INLET CANAL
+ RAINBOW INLET CANAL
MONTPELIER CK AT IRR WEIR NR MONTPELIER, ID
+ MONTPELIER CK RESV (STORAGE CHANGE)
CUB R NR PRESTON, ID - No Corrections

RESERVOIR CAPACITY DEFINITIONS

Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage.

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS FIGURES INCLUDE
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70	--	1561.3	DEAD+INACTIVE+ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE+ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD+INACTIVE+ACTIVE
CLEARWATER BASIN						
DWORSHAK	--	1452.00	2016.00	--	3468.0	INACTIVE+ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	50.00	653.20	--	703.2	INACTIVE+ACTIVE
DEADWOOD	1.50	--	161.90	--	161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	423.18	--	464.2	INACTIVE+ACTIVE
ARROWROCK	--	--	286.60	--	286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE+ACTIVE
LAKE LOWELL	--	8.00	169.10	--	177.1	INACTIVE+ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
UPPER SNAKE BASIN						
HENRYS LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE+SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD+INACTIVE+ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--	--	77.40	--	77.4	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE+ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD+ACTIVE

Interpreting Streamflow Forecasts

Introduction

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflows are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

Most Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast; it means that they need to evaluate existing circumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water

If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value. There is a 30 percent chance the streamflow volume will be less than this forecast value.

90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value. There is a 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water

If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.

10 Percent Chance of Exceeding Forecast. There is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River newa Deeth between March 1 and July 31.

Using the Higher Exceedance Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or if they detrmine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that tlye out of every ten years with similar conditions would produce streamflow volumes greater that 36,000 acre-feet was more than they would like to risk, they might plan on receiveing 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

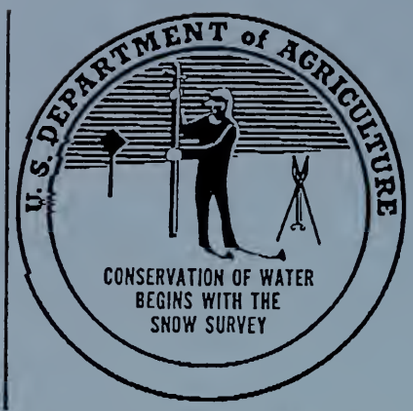
In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

UPPER HUMBOLDT RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	DRIER ... FUTURE CONDITIONS ... WETTER Chance of Exceeding 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG)	30% (1000AF)	10% (1000AF)	25 YR (1000AF)
MARY'S RIVER	MAR-JUL	5.0	20.0	36	77	52	76	47
nr Deeth	APR-JUL	8.0	17.0	31	74	45	67	42
LAMOILLE CREEK	MAR-JUL	6.0	16.0	24	79	32	43	31
nr Lamoille	APR-JUL	4.0	15.0	22	75	30	41	30
NR HUMBOLDT RIVER at Devils Gate	MAR-JUL	6.0	12.0	43	73	74	121	59

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts"



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